REMARKS

Claims 1-3, 7-11, 13-15, 17-18 and 21 are pending in the present application. Claim 1 has been amended by reciting the term "consisting of" in place of "comprising" in the same manner as already recited in claim 2. Claims 13 and 15 have been amended to place them in independent form to include all of the recitations from claims 1 and 3 as now amended. Claims 13 and 15 have also been amended to include the term "further" in front of the word "containing" for purposes of clarification and not to limit their scope. Claims 22-26 have been canceled without prejudice or disclaimer.The amendments to the claims do not introduce any new matter or raise any new issues.

Claims 1, 3, 7-10, 13-15, 17, 18 and 21 are rejected under 35 USC 103(a) as being unpatentable over US Patent 5,449,415 to Dolan in view of WO01/48264 to Sako. The cited references do not render obvious Claims 1, 3, 7-10, 13-15, 17, 18 and 21. The aqueous liquid composition of US Patent 5,449,415 contains (C) at least about 0.15 Mp/kg of a component selected from the group consisting of phosphorus-containing inorganic oxyanions and phosphonate anions. With respect to zinc phosphate as an example, since treating agents based on zinc phosphate have high concentrations of metal ions and acids and are very active, these are economically disadvantageous and low in workability in a wastewater treatment. Further, there is a problem of formation and precipitation of salts, being insoluble in water, associated with the metal surface treatment using treating agents based on zinc phosphate, as discussed in the present specification.

On the other hand, independent claims 1, 14, 17 and 21 of this application are closed claims that exclude those materials. That is, the chemical conversation coating agent of the present application can resolve the above-mentioned problems that occur by using phosphate. Moreover, this invention makes it possible to obtain the same level effect as the conventional technique using a coating agent containing phosphate.

WO01/48264 does not overcome the above discussed deficiencies of Dolan with respect to rendering unpatentable the above claims. For instance WO01/48264 contains a vanadium compound. However, such a metal surface treating agent containing vanadium is not preferable

in point of causing a problem of a harmful effect on human body and wastewater treatment (see page 2, line 18 to 21 in the present specification). As mentioned above, the independent claims of this invention are closed claims and can resolve the problem caused by using vanadium.

In addition, when a composition contains a vanadium compound, it is not necessary to add a crosslinking agent to the composition. In fact, the absence of the crosslinking agent does not have a disadvantageous effect on the data in Example of WO01/48264. On the other hand, the coating agent of the present invention contains a curing group belonging to an epoxy compound and/or a curing agent such as the polyisocyanate and/or melamine. Therefore, the coating agent of this invention is not rendered obvious by WO01/48264.

Therefore, the independent claims 1, 14, 17 and 21 in this invention are not obvious over US Patent 5,449,415 in view of WO01/48264. Accordingly, the other claims which depend on claim 1 are also allowable for at least the same reasons.

Claims 1, 3 and 7-10 are rejected over US Patent 3,964,936 to Das in view of WO01/48264 to Sako. The cited references do not render obvious Claims 1, 3 and 7-10.

In particular, the acidic aqueous coating solution of US Patent 3,964,936 contains boron as an essential component. It is disclosed that when the coating composition contains boron, the amount of zirconium in the coating can be greatly increased. That is, it is necessary to include boron in the coating composition for obtaining the effect of US Patent 3,964,936. Further, the substrates for the coating composition of US Patent 3,964,936 are limited to pure aluminum or alloys of aluminum.

On the other hand, in the chemical conversion coating agent of claim 1 as amended, the boron is not included. That is, the mechanism to obtain good coat performance such as corrosion resistance in the present invention differs from US Patent 3,964,936. Accordingly, US Patent 3,964,936 fails to suggest the present invention and it would not be obvious to modify such to achieve the present invention.

WO01/48264 does not overcome the above discussed deficiencies of Das with respect to rendering unpatentable the above claims. The above discussion of Sako is incorporated here b y reference. Therefore, claim 1 in this invention is not obvious over US Patent 3,964,936 in view of WO01/48264. Therefore, the other claims which depend on claim 1 are allowable based on at least the same reasons.

Claims 2, 11, 13-15, 17, 18 and 21 are rejected over Das in view of WO01/48264 and further view of Dolan. The cited references do not render obvious Claims 2, 11, 13-15, 17, 18 and 21. As mentioned above, US Patent 3,964,936 and US Patent 5,449,415 differ fundamentally from the independent claims 1, 2, 13-15, 17 and 21 of this invention.

Therefore, the independent claims 1, 2, 13-15, 17 and 21 of this invention are not obvious over US Patent 3,964,936 and US Patent 5,449,415 in view of WO01/48264. Accordingly, the other claims which depend on claim 1 are also allowable for at least the same reasons.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

In the event, the Examiner believes that an interview would expedite the prosecution of this application, the undersigned is available at the number noted below.

Please charge $120.00 to our Deposit Account No. 22-0185, under Order No. 21581-00310-US from which the undersigned is authorized to draw.

Dated:

Respectfully submitted,

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